

Page 6, line 2, after this line insert the heading:

--DESCRIPTION OF THE PREFERRED EMBODIMENTS--;

Page 11, last line, after this line insert the following paragraph:

While the foregoing description and drawings represent the present invention, it will be obvious to those skilled in the art that various changes may be made therein without departing from the true spirit and scope of the present invention.

IN THE CLAIMS:

Preceding "1." change "Patent Claims" to --What is claimed is--.

Cancel claims 1-19 and add the following claims 20-39, reading as follows:

--20. An illumination arrangement for a stereo microscope, in particular, a Greenough type stereo microscope, comprising:
at least one illumination channel which is arranged in a plane which is arranged essentially orthogonally with respect to the plane of the observation channel.

21. An illumination arrangement for a stereo microscope, in particular a Greenough type stereo microscope comprising:
two illumination channels which are arranged in a plane which is arranged essentially orthogonally with respect to the plane of the two observation channels.

22. The illumination arrangement according to claim 21, in a Greenough type stereo microscope with two light channels in the interior of the microscope housing outside of the observation beam paths.

23. The illumination arrangement according to claim 21; wherein the light channels are guided around the observation optics.

24. The illumination arrangement according to claim 21, wherein the illumination direction is carried out at an angle to the optical axis of the microscope, so that no direct light falls in the observation channels.

25. The illumination arrangement according to claim 20, wherein the illumination is carried out via at least one light guide.

26. The illumination arrangement according to claim 25, wherein the light guide is a flexible glass light guide and/or plastic light guide and/or fluid light guide.

~~27. The illumination arrangement according to claim 25, wherein the light guide extends at least partially in the interior of the microscope housing.~~

28. The illumination arrangement according to claim 25, wherein the

35. The illumination arrangement according to claim 33, wherein the branches of the light guide are guided around the observation channels.

36. The illumination arrangement according to claim 25, wherein the light guide is connected with a cold-light source arranged outside of the microscope.

37. The illumination arrangement according to claim 21, wherein a fluorescence excitation is carried out via the illumination channels.

38. The illumination arrangement according to claim 37, wherein at least one light guide is connected with a light source which is arranged outside of the microscope and which is suitable for fluorescence excitations in combination with exchangeable excitation filters.

39. The illumination arrangement according to claim 37, wherein a filter holder for excitation filters is provided between the light source and the light guide and a filter holder for blocking filters is provided in the observation beam path.--